

REMARKS

Claims 1-21 are pending in this application. Attached hereto is a complete listing of all claims in the application, with their current status listed parenthetically. By this Response, claims 14-16 have been amended, and are presented with markings to indicate their current amendments.

Rejection Under 35 U.S.C. § 112, 2nd paragraph

In paragraphs 2 and 3 of the Office Action, the Examiner rejects claims 14-16 as being indefinite. In response, Applicant has amended the claims to clearly recite an apparatus.

The above-described claim amendments have been drafted in response to the indefiniteness rejection, to impart precision into the claims by more particularly pointing out the invention. The claim amendments have not been drafted to overcome any prior art.

In view of the above, Applicant respectfully requests that the Examiner reconsider and withdraw this objection.

Rejection Under 35 U.S.C. § 102(e)

Pending claims 1, 4-11 and 14-19 stand rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent 6,492,897 (“Mowery”). As discussed below, Applicant respectfully traverses this rejection.

A. The Law of Anticipation and Enabling Prior Art References

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. M.P.E.P. § 2131. The identical invention must be shown in as complete detail as is contained in the claim. *Id.*

However, Applicant submits that independent claims 1, 9, 14 and 17 have elements that cannot be found, either expressly or inherently, in Mowery. For example, claim 1 recites, in part, "an ultra-wideband transmitter" and "an ultra-wideband receiver."

Independent claims 9 and 14 both recite, in part:

". . .transmitting the plurality of ultra-wideband pulses from the first ultra-wideband device to a second ultra-wideband device, so that the plurality of ultra-wideband pulses go around the power grid transformer. "

Independent claim 17 recites:

"An ultra-wideband bridging system, comprising:
at least two ultra-wideband devices positioned adjacent to a power grid apparatus, the at least two ultra-wideband devices structured to selectively receive and transmit a plurality of ultra-wideband pulses so that the power grid apparatus is bypassed."

Ultra-wideband (UWB) communication technology is disclosed in Applicant's originally-filed specification, beginning on page 10, line 13, and ending on page 13, line 4. This section states, in part:

"The present invention employs a "carrier free" architecture which does not require the use of high frequency carrier generation hardware, carrier modulation hardware, stabilizers, frequency and phase discrimination hardware or other devices employed in conventional frequency domain communication systems. Because the excitation pulse is not a modulated waveform, UWB has also been termed "carrier-free" in that no apparent carrier frequency is evident in the radio frequency (RF) spectrum. That is, the UWB pulses are transmitted without modulation onto a sine wave carrier frequency, in contrast with conventional radio frequency technology. Ultra-wideband requires neither an assigned frequency nor a power amplifier."

In contrast, Mowery teaches ultra-wideband as a type of modulation method:

The receiver captures digital and analog signals that are modulated with high or low frequency carriers. The carrier has a sub-carrier that is modulated with a conventional modulation technique such as analog modulation, frequency modulation, amplitude modulation, phase modulation, QPSK modulation, GSM, CDMA, TDMA, or ultra-wide band time domain based technology. **The best mode of practice uses impulse modulation in accordance with ultra-wide**

band time domain based technology. Impulse modulation is a modern modulation technique that decreases power output while ten fold increasing data bandwidth. **The sub-carrier also uses impulse modulation is the best mode of modulation** (col. 11, lines 4-16) [emphasis added]

Thus, Mowery teaches ultra-wideband as a modulation method that uses a carrier and a sub-carrier. This is not ultra-wideband as disclosed by Applicant. Ultra-wideband (UWB) as disclosed by Applicant **does not use a carrier, and is not a modulation method.** UWB as disclosed by Applicant may use many different modulation methods, such as pulse position modulation, pulse amplitude modulation, on-off keying, and binary phase-shift keying (page. 17, line 15 to page 18, line 15).

In summary, Applicant submits that Mowery does not teach or suggest ultra-wideband as claimed and disclosed by Applicant.

Furthermore, independent claims 9, 14 and 17, (which also recite "ultra-wideband"), also recite bypassing selected components in a power grid system. Mowery contains no teaching or suggestion of this concept.

Accordingly, Applicant respectfully submits that Mowery cannot anticipate independent claims 1, 9, 14 and 17. Because claims 4-8, 10-11 and 15-16 depend from one of claims 1, 9, 14 and 17, it is respectfully submitted that the rejection of claims 4-8, 10-11 has been traversed by virtue of their dependency from claims 1, 9, 14 and 17, respectively. M.P.E.P. § 2143.03

Rejection Under 35 U.S.C. § 103(a)

In paragraphs 6-8 of the Office Action, claims 2, 3, 12, 13, 20 and 21 stand rejected as unpatentable over Mowery. As these claims depend from and further limit and define the

invention as recited in the above-listed independent claims, these dependent claims are also patentably distinct from the art being considered as the arguments above with respect to the independent claims apply to these dependent claims as well. M.P.E.P. § 2143.03

Therefore, Applicant respectfully requests the Examiner to reconsider and withdraw this rejection.


Conclusion

Applicant believes that this Response has addressed all items in the Office Action and now places the application in condition for allowance. Accordingly, favorable reconsideration and allowance of claims 1-21 at an early date is solicited. Should any issues remain unresolved, the Examiner is invited to telephone the undersigned.

Respectfully submitted,

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Date



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